

The Role of Preservice Teachers in Developing Metacognitive Awareness Strategies in an Urban Language Arts Writing High School Classroom

Judith Shabaya, (Email: jshabaya@bw.edu), Baldwin-Wallace College, Berea, Ohio

Abstract

The study used a qualitative approach to examine the development of metacognitive awareness strategies among student writers. The purposes of the study were to determine the indices of metacognitive awareness strategies used by students, the role of preservice teachers, and the relevance of instructional strategies. Participants were preservice teachers and high school students. Data collection included field notes, writing samples, reports, surveys, portfolios, and evaluations. The study results indicated the following: 1. Students' self-perceptions as writers change; 2. metacognitive awareness development occurs over time; 3. Metacognitive awareness development occurs differently among students; and 4. Varied teaching approaches yield effective writing instruction.

Introduction

Writing is one of the most important skills in today's society; naturally then it is one of the most complex activities taught in schools and colleges (Trembley, 1993). Writing enables students to develop meta-cognitive skills that promote critical thinking skills and problem solving abilities. Writing is a cognitive function that requires learners to become involved in intellectual tasks. Well-developed metacognitive awareness strategies in writing help students to create meaningful learning goals that can be monitored and evaluated. Metacognitive skills in writing require students to think effectively about their own thinking in relation to a given writing task.

Purpose of the Study

The purpose of the study was to determine the indices of metacognitive awareness skills in writing for urban high school students in an urban Language Arts writing class. The study tracked the metacognitive awareness skills of high school students taught by preservice teachers who were using process writing as an instructional approach to teaching writing. O'Laughlin (1998) says, "Learners who have no metacognitive awareness skills are like travelers without a road map" (p.16).

The study also examined whether the active involvement of preservice teachers with high school students in a language arts class effectively influenced the students' metacognitive awareness in writing. It also attempted to establish whether selected instructional strategies assisted students' improvement in

metacognitive skills in writing. Preservice teachers were involved in working with the high school students at various stages of the writing process starting from the drafting to the publishing stages.

Statement of the Problem

It is apparent that some teachers do not fully understand the metacognitive aspects of students' learning and therefore do not craft instructional strategies successfully. According to the 2002 National Association of Education Progress Report (NAEP, 2002), although most schools have come up with claims of success in writing programs in their schools, more and more students display a lack of writing proficiency. Students of all ages and all grade levels still have difficulties in producing informative, persuasive and narrative writings. In 2002, the National Association for Educational Standards (NAEP) administered the latest writing assessment to students at grades 4, 8, and 12 in the nation. The assessment measured students' writing achievement. The latest National Association of Education Progress (NAEP) data on the writing assessments given to grades 4, 8 and 11 data reveal that less than one-quarter of students at each grade level reach a proficient level and only 1% reaches an advanced level (Greenberg, Persky, Campbell and Mazeo 1999. Cited in Meece, 2002). The problematic issue is that despite an increased national focus on writing instruction, there has been little change in students' proficiency levels since 1984 (Meece, 2002). Knowledge gained from this study may help educators to understand metacognitive awareness skills development in writing and also how instructional strategies assist students in developing metacognitive awareness through writing activities.

Research Questions

- a) What are the indices of high school students' metacognitive awareness in written reflections and autobiographical writing over the course of a semester?
- b) Are there observable trends about instructional strategies in preservice teachers' written reflections of high school students' writing?

Literature Review

Researchers and educators have taken time to address difficulties with writing and have suggested a variety of metacognitive awareness strategies to develop efficient writing skills (Meece, 2002). Trembley (1993) believes that writing instructors must tell "the truth about how hard and risky writing is for almost everyone" (p.6). Richards (1999) supports this statement and suggests that the goal for teaching metacognitive awareness in writing should be to increase automaticity of skills and the use of specific strategies. He also purports that meaningful writing assignments help learners acquire the metacognitive skills that enhance good writing strategies.

Recent research suggests a potential link between metacognitive knowledge and writing performance (Devine, 1993). Metacognitive theory deals with cognitive self-knowledge, that is, what individuals know about their own thinking (Kellogg, 1994). Englert (2001) confirm that one area of difficulty in writing is lack of awareness of appropriate strategies due to limited metacognitive knowledge. Devine (1993) points out that there are data that suggest "metacognitive variables play an even more important role than linguistic competence in successful writing" (p. 116). These findings suggest that effective writing instruction must be based on an understanding of students' metacognitive knowledge and must be directed toward helping students to develop their cognitive models.

O' Laughlin (1998) argues that students who lack metacognitive awareness simply lack a plan for learning and cannot review their own progress. He insists that learners need a combination of metacognitive and cognitive strategies to succeed in school tasks.

Writing is a complex process, some aspects of which cause particular difficulties for children (Bereiter & Scardamalia, 1987; Flower, 1989; Hayes & Flower, 1986). Researchers and educators have addressed difficulties with writing by providing metacognitive training or support, or by making arrangements for student dialogue with the teacher or other children (Graves, 1999). Scardamalia and Bereiter (1987) argue that direct teaching of metacognitive strategies may suffer from problems of generalization and maintenance. They propose the coupling strategy instruction, which takes into account the role of the audience, the writers' goals and prior knowledge right from the beginning of the writing process. They believe that this strategy is good at eliminating generalization issues in writing.

Englert (2001) confirm that a related area of difficulty is limited metacognitive knowledge and control. Learners may lack awareness of appropriate strategies, or have difficulty exercising control over implementing and monitoring them as a result this has contributed to evolving trends in the teaching of writing. Bereiter and Scardamalia (1987) say:

as learners make the transition from spoken to written communication; they may suffer owing to the lack of external feedback. In conversation, verbal and nonverbal signals from a partner constantly stimulate and modify further thought and language production, but in the case of writing language production usually has to be sustained by internal processes. p. 109.

This kind of thought has also contributed significantly to the teaching of writing.

Tompkins (2003) offers the use of the writing workshop as a trend that teachers need to understand and try out. The writing workshop views writing as a process. The stages in the process are 1) Brainstorming, 2) Actual writing, 3) Revision, 4) Editing and 5) Publishing. These five stages do not occur in a rigid order during the process. Not all writers treat the process as an unyielding process in which they have to go through the 5 stages in the chronological order mentioned above. Writers tend to move back and forth the process as they desire. Some writers edit portions of their written work as they proceed with writing while others complete their writing first and then revise it. Foster (2002) describes the writing process as recursive in the sense that writers are flexible to deal with a selected aspect of the process.

The writing process may be taught in a variety of disciplines besides the Language Arts classrooms. Sobal (2001) defines the writing process as writing that includes any activity that contributes to the final written product by including research practices, reading practices, thinking practices, and so on. Teaching students how to write in any discipline, may require the teacher to introduce the particular ways of reading, thinking, researching, and writing in that discipline and giving the learners opportunities to practice these processes by breaking them down into discrete skills. Sobal provides a guideline on how to teach the writing process. His first stage is consideration of goals. He refers to the teaching of writing as Process Pedagogy. Sobal studied how three professors in different disciplines emphasized on the writing process in their teaching and found out that in these writing classrooms, professors rarely discussed the writing process. Instead they concentrated more on writing clarity, authority, and correctness. Process pedagogy offers professors and teachers a new way of thinking about the teaching of writing. Sobal's explanation of process pedagogy seems to explain the aspect of viewing writing as a process. Process pedagogy makes students realize that writing is a process that consists of interrelated activities and strategies.

The first professor in the study adopted a Five Approach Strategy to teaching writing. Professor Rege in an interview with Sobal (2001) pointed out that the best way for teaching students how to write is to engage them by giving them actual writing activities more frequently. She believes that if students are preoccupied with reading, they cannot give their writing the attention it deserves. Professor Rege argues that the personal essay is a valuable teaching tool because issues that come up in these essays often contribute to individual student's writing problems. The second professor in Sobal's study is Peter Travis whose course focuses on the connection between the student as an individual and his/her writing process. The theme of Professor Travis' course is the construction of "self." Professor Travis is interested in how writing has an impact upon the construction of self; students are asked to write about themselves as writers: their writing habits, fears, strengths, and any other issues of interest or concern to them. He demystified the writing process for her students by giving them opportunities to share their essays and talk about the writing process. Adrian Bailey is the third exemplary professor in the study who uses the process approach. Professor Bailey's approach enables his students to practice collaborative learning. The learners share ideas with peers, come to an agreement on issues and decide on methods for presenting information. This aspect is very relevant for this study because of the proposition that writing is also a socio-cognitive activity among other things.

Ostrowski (2000) studied four teachers to find out the effects of their involvement in their students' learning experiences in reading and writing. Students expressed a different attitude towards writing after their encounters with the four exemplary teachers in Dade County, Florida. These teachers got involved in their students' lives. They used different teaching strategies such as small group work, peer editing, and individual work. They listened and encouraged students to relate their out of school experiences to the reading and writing schoolwork. These teachers determined the individual needs of their students and provided support whenever the students felt overwhelmed or incapable of moving on with their tasks. Students found out that they could rely on these teachers. Ostrowski concluded that this scaffolding by the teachers helped the students to become better learners.

Manning et al. (2000) discuss strategies for assessing students' reading and writing abilities. These involve the assessment of students' interest in writing as well as the writing processes, written responses to literature, and reading and writing in theme immersions. As they were in the Manning et al. (2000) study, students in this study were exposed to various instructional techniques. Pre-service teachers did formative evaluations and changed teaching strategies whenever it became necessary. They also encouraged students to adopt learning strategies that enhanced good writing skills.

Significance of the Study

Ongoing controversies regarding student performance and educational testing make it important to understand how students' metacognition is related to instructional activities and how metacognitive awareness is related to writing performance. The results of this study may assist educators in gaining a better understanding of the cognitive development of their students in relation to metacognition and writing.

Research Design

The research design for this study is an in-depth single case study of urban high school students in a Language Arts writing class. The single case study involved the observation of one population or sample at one point in time. This study sought to track the development of metacognitive awareness of learners within instructional frameworks selected by preservice teachers. The study simply focused on the various strategies such as paired writing, small group approach, peer revision, one-on-one instruction and

individual work. For instance, brainstorming was done in small groups comprising of at least four preservice teachers and their tutoring students. With the paired writing approach, the preservice teacher and the high school student discussed different portions of the project. The preservice teacher's role was to help the students whenever they experienced difficulties that hindered them from moving on with the writing. Students were given an opportunity to move in and out of the writing process order of brainstorming, actual writing, revision, editing and publishing as they wished. The recursive nature of writing was acceptable.

Methodology

This study is a qualitative description of the process of teaching writing in an urban high school classroom. The study was carried out in a Language Arts classroom in which the preservice teachers adopted the writing process approach for teaching writing. The high school students were required to produce autobiographies with twelve different chapters in a course of sixteen weeks. The researcher also focused on the different types of instructional strategies that were used by preservice teachers for teaching metacognitive awareness skills. Data was collected from drafts and final products of the autobiographies, field notes, free writing samples, mentoring reports, student surveys, portfolios, writing activity evaluations done by high school students, student letters to preservice teachers, and letters to students from the preservice teachers. Information derived from the analyzed data was used to determine the nature of the development of metacognitive awareness strategies for the writers as well as the types of instructional strategies that preservice teachers used. Berg (1995) says field research relies heavily on the use of field notes, which are running descriptions of settings, people, activities, and sounds. The researcher also observed and recorded notes soon after the observation for accuracy purposes.

The researcher also used archival records such as writing samples and writing and interest surveys. Writing samples by the students helped the preservice teachers to create impressions about students' writing skills. Student surveys were used to gain an understanding of the writing habits and interests of the students. Writing activity evaluation done by high school students were used to determine how the students perceived the whole writing collaborative experience. Portfolios were a collection of work done by the high school students throughout the semester. Preservice teachers also kept portfolios.

Data Analysis

A qualitative approach was deemed the best way to explore the "depth, detail and individual meaning" (Patton, 1990, p. 17) of the students' and pre-service teachers' responses. McCrindle and Christensen (1995) believe that "the nature of a student's knowledge structures can be assessed using a . . . qualitative analysis of the nature of student learning" (p. 171). In this research although the main approach was qualitative, the researcher also used quantitative methods. Miles and Huberman (1994) and many other researchers agree that these two research methods need each other more often than not. Some researchers think they can be used in combination only by alternating between methods; qualitative research is appropriate to answer certain kinds of questions in certain conditions and quantitative is right for others. Snyder (2000) says it is important for researchers to realize that qualitative and quantitative methods can be used in conjunction with each other.

After collecting the data, the researcher entered all the information from the 18 folders into the Max for Qualitative Data Analysis program (MAXQDA). The MAXQDA program has four main windows which are document system, text browser, code systems and retrieval segments. The document system contains a list of all texts and text groups. The code system contains all the categories that are being selected for the project, and the text browser is the working window where the text segments are

marked and codes are attached. Editing may be done whenever necessary. The retrieval window allowed the researcher to bring up coded segments to work with at any time during the course of analyzing the data.

Each pre-service teacher and high school students significant statements pertaining to the research questions were highlighted and word-processed. The statements were then classified into two main categories: metacognitive awareness skills and instructional strategies. Every statement was coded by noting a topic category and sub-category. The main category and the subcategories were assigned different colors. For example, preservice teachers discussed different metacognitive awareness skills. Metacognitive awareness became the main category and the actual metacognitive skill, such as self knowledge, task knowledge, self monitoring and self regulation became sub categories. Each item was analyzed by reading through students' responses carefully to get an overall sense and make interpretations. The researcher selected the use of qualitative research methods for the study in support of some of the following: the variables of metacognitive awareness and instructional could be better described using a qualitative approach. Strauss and Corbin (1990) say the qualitative approach is good in cases where the researcher has determined that quantitative measures cannot adequately describe or interpret a situation.

Participants

There were 18 preservice teachers from a local university who were taking a course on advanced teaching techniques in Language Arts and 21 high school students who were enrolled in the 11th grade Language Arts class. The racial breakdown was: 4 Caucasian, 7 Hispanics and 10 African American. Thirteen students were females and 8 were males.

Results

The study yielded the following results: 1. Students' self perceptions as writers changed over the course of the semester as indicated by the students' self reports about how they perceive themselves as writers before and after the tutorials. 2. Metacognitive awareness development occurs over a period of time as indicated by the comments from preservice teachers' perception of individual students' performance before and after the tutorials. 3. Metacognitive awareness development does not occur in a uniform manner for all students. 4 Preservice teachers became aware that varied instructional strategies and teaching approaches yield effective writing instruction, this was reported in preservice mentoring reports that were written every three weeks of the of the project.

Findings of this study support prior research knowledge that writing is a very complex process in which cognitive and metacognitive activities occur at the same time. The study concluded that students' self perceptions as writers change over the course of a semester and that metacognitive awareness development occurs over a period of time.

This study supports the idea that there is a relationship between metacognitive awareness skills, instructional strategies and writing (Garner, 1994, p. 715). It is worth noting that different students developed and used different strategies for the different writing activities at various stages of the writing process. This aspect is well supported by researchers such as Crowhurst (1996) and Flower (1989). The study gives preliminary evidence that instructional support and scaffolding can facilitate the promotion of metacognitive awareness. At the end of the project, high school students could interpret task expectations accurately and also monitor their own writing. The study also established that the acquisition of metacognitive awareness skills was not uniform for all students. Task knowledge skills were prevalent throughout the writing stages as students sought to understand the requirement of the assignment at hand.

Self-regulation and control was significant in the students' actual writing habits and the production of the final drafts of the autobiographies.

This study validates prior research done on the role of metacognitive awareness strategies by explaining how writers progress through the different process writing stages. The study also consolidates that an understanding of students' metacognitive knowledge results in effective instruction. Paired-writing approach, group discussions, guided participation, and the questioning strategy were the main instructional strategies that were adopted to facilitate metacognitive development in this study. Teachers' provision of ample writing opportunities for students to practice control of their own writing was evident. Further research on identifying the developmental patterns of metacognitive awareness strategies may be done with students in different settings and of different age groups. It is worthwhile to study how younger students apply cognitive operations in their writings. An earlier understanding of how younger or older learners apply metacognitive awareness strategies as they write would be useful. This may assist teachers to plan writing instruction that will be adaptable and may go a long way as students move on to high school with the acquired skills.

References

- Bereiter, C. & Scardamalia, M. (1987). *The psychology of written composition*. Hillsdale, NJ: Lawrence Erlbaum.
- Berg, B. (1995). *Qualitative research methods for social sciences* (2nd Edition). Boston, MA: Allyn and Bacon.
- Crowhurst, M. (1996). Teaching and learning argumentative writing in the middle school years. In: Deborah P. Berrill, (Ed). *Perspectives on written argument*. Cresskill, NJ: Hampton Press.
- Devine, J. (1993). The role of metacognition in second language reading and writing. In J. G. Carson & I. Leki (Eds.). *Reading in the composition classroom: Second language perspectives* (pp. 105-127). Boston: Heinle and Heinle.
- Englert, C. (2001). A case study of the apprenticeship process: another perspective on the apprentice and the scaffolding metaphor. *Journal of Learning Disabilities* 10 (4) pp 102-122; Mar/Apr
- Flower, L. (1989). Cognition, context, and theory building. *College Composition and Communication*, 40, 282-311.
- Foster, H. M. (2002). *Crossing over: teaching meaning-centered secondary English language arts*. Mahwah, N.J.: L. Erlbaum Associates.
- Garner, R. (1994). Metacognition and executive control. In R. B. Ruddell, M. R. Ruddell, & H. Singer (Eds.). *Models and processes of reading* (4th Edition), (pp. 715-732). Newark, DE: International Reading Association.
- Graves, D. H. (1983). *Writing: Teachers and their children*. Portsmouth, NH: Heinemann Educational Books.
- Greenberg, E.A., Persky, H.R., Campbell, J.R., & Mazzeo, J. (1999). NAEP 1998 Writing Report card for the nation and the states. Washington, D.C: U.S. Department of Education.

- Greenberg, J. and Rath, C. (1985). Empowering students through writing. *Educational Leadership*, 42 p. 10-13.
- Kellogg, R. T. (1994). *The psychology of writing*. New York: Oxford.
- McCrindle, A. R., & Christensen, C. A. (1995). The impact of learning journals on metacognitive and cognitive processes and learning performance. *Learning and Instruction*, 5, 167-185.
- Manning, M. & Kamii, C.(2000) Whole Language vs. Isolated Phonics Instruction : A Longitudinal Study in Kindergarten with Reading and Writing Tasks. *Journal of Research in Childhood Education* v15p.53-65 Fall-win 2000.
- Meece, J. (2002). *Child and adolescent development for educators*. Boston: McGraw-Hill.
- Miles, M. B., and Huberman, A. M. (1994). *Qualitative data analysis*, 2nd edition. Newbury Park, CA: Sage
- National Association of Educational Assessment (NAEP). (2002). *Annual Report*. Washington, D.C: National Center for Education Statistics
- O'Laughlin, M. (1998). *Writing lives: The writing processes of children's authors and their characters*. University of Wyoming Collins, Lynne Decker.
- Ostrowski, S. (2000). *How English is taught and learned in four exemplary middle and high school classrooms*. Albany, NY. National Research Center on English Learning & Achievement, University at Albany, State University of New York: Washington DC: US Department of Education, Office of Educational Research and Improvement, Educational Resources Information Center.
- Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods* (2nd ed.). Newbury.
- Richards, R.G. (1999). *Strategies for Dealing with Dysgraphia*. Riverside, CA: RET Center.
- Shabaya, J. (2004, September). *The role of preservice teachers in developing metacognitive awareness strategies in an urban language arts writing classroom*. Paper presented at The International College Teaching Methods & Styles Conference, Reno, Nevada.
- Snyder, P. (2000). Guidelines for reporting results of group quantitative investigations. *Journal of Early Intervention*, 23, 145–150.
- Sobal, P. (2001). *Teaching the writing process pedagogy*: Hanover, NH: Dartmouth College Composition Center.
- Strauss, A. & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park: Sage.
- Tompkins, G. (2003). *Literacy for the 21st century*. Upper Saddle River, NJ: Merrill/Prentice Hall.

Trembley, D. (1993). *Guidelines for teaching writing to ABE and ASE learners*. Paper presented at the Annual Midwest Regional Conference on English in the Two-year College, Madison, WI, October 7-9, 1993 ERIC Document Reproduction Service ED 361 741

